

FLAT-PANEL, LARGE-AREA, DIELECTRIC  
BARRIER DISCHARGE-DRIVEN V(UV) LIGHT SOURCE

ABSTRACT OF THE DISCLOSURE

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The present invention provides a DBD light sources having flat-plate, large-area panels and a system for designing such DBD light sources that withhold the mechanical stress caused during the lamp envelope cleaning (evacuation at elevated temperatures) and the pressure of final gas filling (if other than atmospheric). One or more embodiments of the present invention place mechanical stems inside of the lamp envelope which greatly reduce the mechanical stress at the sealing surface, as well as over the entire large area panel surface. In one embodiment, the stems are arranged so that they are equidistant. This design enables the mechanical stability of the lamp envelope during the cleaning (vacuum) process, as well as the filling of the lamp envelopes at other than atmospheric gas pressure.

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